

REMARKS

Claims 1-27 remain in this application. Claims 1, 9, 12, 18, and 19 have been amended. Claims 23-27 have been added. The amended claims and the added claims are supported by the specification and no new matter has been added. The Applicants respectfully requests reconsideration of this application in view of the above amendments and the following remarks.

35 U.S.C. §112 Rejection

The Examiner has rejected claim 9 under 35 U.S.C §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

Applicants submit herein proposed amendments, which overcome the reasons for rejection. Accordingly, the Applicants respectfully request that the rejection be withdrawn.

35 U.S.C. §102 Rejection - Perry

The Examiner has rejected claims 1-7, 9, 10, 12, 14-20 and 22 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,483,518 issued to Perry et al. (hereinafter referred to as "Perry"). Applicants respectfully submit that Perry does not anticipate claim 1.

Claim 1 recites at least, "*accessing graphical data for a plurality of nodes that represent a portion of a surface of a three-dimensional object, the graphical data including ... displacement data that indicates a displacement for each of the plurality of nodes from a corresponding reference node of a plurality of reference nodes*". Perry does not teach or suggest displacement data that indicates a displacement of a node from a reference node.

Perry discusses in part detail-directed hierarchical distance fields (HDFs) and data structures used to store these distance fields in a memory (column 7, lines 55-58). The distance

fields represent a distance from any point in space to the closest point on the surface of the object. For example, refer to Figure 1 and column 8, lines 13-21, where it is stated:

“The signed distance field associated with the object 101 represents the distance 106 from any point in space 107 to the closest point 108 on the surface of the object 101. The sign of the distance field distinguishes between points that are inside and outside of the object surface. For example, positive distances are associated with points inside of the surface, negative distances are associated with points outside of the surface, and a distance of zero is associated with points that lie on the surface.”

As understood by the Applicants, such distances are not displacements from reference nodes. Accordingly, Perry does not teach or suggest the claimed limitation of “*displacement data that indicates a displacement for each of the plurality of nodes from a corresponding reference node of a plurality of reference nodes*”. The distances discussed in Perry are not displacements for nodes.

Anticipation under 35 U.S.C. Section 102 requires every element of the claimed invention be identically shown in a single prior art reference. The Federal Circuit has indicated that the standard for measuring lack of novelty by anticipation is strict identity. “*For a prior art reference to anticipate in terms of 35 U.S.C. Section 102, every element of the claimed invention must be identically shown in a single reference.*” In *Re Bond*, 910 F.2d 831, 15 USPQ.2d 1566 (Fed. Cir. 1990).

For at least these reasons, claim 1 is believed to be allowable over Perry. Claims 2-11 and 23 depend from claim 1 and are believed to be allowable therefor, as well as for the recitations independently set forth therein.

Claim 12, 15, and 18 each recites at least “a *displacement*” or “a *displacement distance*” and are believed to be allowable for reasons similar to those discussed above for claim 1.

Claims 13-14 and 24 depend from claim 12, claims 16-17 depend from claim 15, and claims 19-22 depend from claim 18. These dependent claims are believed to be allowable therefor, as well as for the recitations independently set forth therein.

35 U.S.C. §103(a) Rejection – Perry in view of Cox

The Examiner has rejected claim 8 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,483,518 issued to Perry et al. (hereinafter referred to as “Perry”) in view of U.S. Patent No. 5,751,931 issued to Cox et al. (hereinafter “Cox”). The Applicants respectfully submit that the present claims are allowable over any combination of Perry and Cox.

As discussed above, Perry does not teach or suggest displacement data that indicates a displacement of a node from a reference node. Without admitting the appropriateness of combining Perry and Cox, the Applicants respectfully submit that these limitations are also missing from Cox. For at least these reasons, claim 1 and dependent **claim 8** are believed to be allowable over any combination of Perry and Cox.

35 U.S.C. §103(a) Rejection - Perry

The Examiner has rejected claims 11, 13 and 21 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,483,518 issued to Perry et al. (hereinafter referred to as “Perry”). The Applicants respectfully submit that the present claims are allowable over Perry.

As discussed above, Perry does not teach or suggest displacement data that indicates a displacement of a node from a reference node. Accordingly, claim 1 is believed to be allowable and **claim 11** is believed to be allowable therefore as well as for the recitations independently set forth therein. Claims 12 and 18 are believed to be allowable for similar reasons, since Perry does not teach or suggest “*a displacement*”. **Claims 13 and 21** depend from either claim 12 or 18 and are believed to be allowable therefore as well as for the recitations independently set forth therein.

Conclusion

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record and are in condition for allowance. Applicants respectfully request that the rejections be withdrawn and the claims be allowed at the earliest possible date.

Request For Telephone Interview

The Examiner is invited to call Brent E. Vecchia at (303) 740-1980 if there remains any issue with allowance of the case.

Request For An Extension Of Time

The Applicants respectfully petition for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17 for such an extension.

Charge Our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,
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